

REMARKS

EXAMINER'S RESPONSE TO ARGUMENTS - PREAMBLE

The linch pin of the Examiner's argument is the assertion, made without a statement of any legal support, is:

"4. Applicant's arguments filed 07/29/09 have been fully considered but they are not persuasive.

Applicant argues:

A. Neither reference relied on relates to the problem of transient protection or dissipating transients or even mentions the word "transients" or any synonym thereof. Neither reference relied on relates to any solution for dissipating transients.

Response to (A), Examiner disagrees because the term "for transient protection or dissipating transients" is preamble language and "for plus function" for the circuit protection system. Further, the preamble language or "for plus function" must be read on the context of the entire claim or in a body of the claim. So the term "for transient protection or dissipating transients" does not support in the body of the claimed invention."

The preamble of claim 62 is:

"A circuit protection system for dissipating transients without the use of transorbs or metal oxide varistors which comprises: "

The Manual of Patent Examining Procedure Eighth edition Rev. 6 states

"This Manual is published to provide U.S. Patent and Trademark Office (USPTO) patent examiners, applicants, attorneys, agents, and representatives of applicants with a reference work on the practices and procedures relative to the prosecution of patent applications before the USPTO. It contains instructions to examiners, as well as other material in the nature of information and interpretation, and outlines the current procedures which the examiners are required or authorized to follow in appropriate cases in the normal examination of a patent application."

The relevant section of the MPEP is:

MPEP 2111.02 Effect of Preamble [R-3] - 2100 Patentability includes an initial statement:

The determination of whether a preamble limits a claim is made on a case-by-case basis in light of the facts in each case; there is no litmus test defining when a preamble limits the scope of a claim. *Catalina Mktg. Int'l v. Coolsavings.com, Inc.*, 289 F.3d 801, 808, 62 USPQ2d 1781, 1785 (Fed. Cir. 2002). See *id.* at 808-10, 62 USPQ2d at 1784-86 for a discussion of guideposts that have emerged from various decisions exploring the preamble's effect on claim scope, as well as a hypothetical example illustrating these principles.

"[A] claim preamble has the import that the claim as a whole suggests for it." *Bell Communications Research, Inc. v. Vitalink Communications Corp.*, 55 F.3d 615, 620, 34 USPQ2d 1816, 1820 (Fed. Cir. 1995). "If the claim preamble, when read in the context of the entire claim, recites limitations of the claim, or, if the claim preamble is 'necessary to give life, meaning, and vitality' to the claim, then the claim preamble should be construed as if in the balance of the claim." *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165-66 (Fed. Cir. 1999). See also *Jansen v. Rexall Sundown, Inc.*, 342 F.3d 1329, 1333, 68 USPQ2d 1154, 1158 (Fed. Cir. 2003)(In considering the effect of the preamble in a claim directed to a method of treating or preventing pernicious anemia in humans by administering a certain vitamin preparation to "a human in need thereof," the court held that the claims' recitation of a patient or a human "in need" gives life and meaning to the preamble's statement of purpose.). *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951) (A preamble reciting "An abrasive article" was deemed essential to point out the invention defined by claims to an article comprising abrasive grains and a hardened binder and the process of making it. The court stated "it is only by that phrase that it can be known that the subject matter defined by the claims is comprised as an abrasive article. Every union of substances capable *inter alia* of use as abrasive grains and a binder is not an 'abrasive article.'" Therefore, the preamble served to further define the structure of the article produced.). " (emphasis added)

Thus, just as the *Kropa v. Robie* case held that the use of "an abrasive article" is not inherent in abrasive substances and therefore the preamble is limiting. With still greater force the preamble in this case satisfies the *Pitney Bowes, Inc. v. Hewlett-Packard Co.* test because "... the claim preamble, when read in the context of the entire claim, recites limitations of the claim, or, if the claim preamble is 'necessary to

give life, meaning, and vitality' to the claim, then the claim preamble should be construed as if in the balance of the claim." More specifically, the preamble of the claim not only give life and meaning to the claim, it enormously limits the claim with the words "**without the use of transors or metal oxide varistors**" as well as the words "**A circuit protection system for dissipating transients...**".

MPEP 211.02 continues with respective sections:

- I. < PREAMBLE STATEMENTS LIMITING STRUCTURE and
- II. < PREAMBLE STATEMENTS RECITING PURPOSE OR INTENDED USE

The initial statement as well as each of these section each fully support applicant's position. The following analyses the respective sections.

- I. < PREAMBLE STATEMENTS LIMITING STRUCTURE provides

"Any terminology in the preamble that limits the structure of the claimed invention must be treated as a claim limitation. See, e.g., *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257, 9 USPQ2d 1962, 1966 (Fed. Cir. 1989) (The determination of whether preamble recitations are structural limitations can be resolved only on review of the entirety of the application "to gain an understanding of what the inventors actually invented and intended to encompass by the claim."); *Pac-Tec Inc. v. Amerace Corp.*, 903 F.2d 796, 801, 14 USPQ2d 1871, 1876 (Fed. Cir. 1990) (determining that preamble language that constitutes a structural limitation is actually part of the claimed invention). **See also *In re Stencil*, 828 F.2d 751, 4 USPQ2d 1071 (Fed. Cir. 1987).** (The claim at issue was directed to a driver for setting a joint of a threaded collar*;< however>,< the body of the claim did not directly include the structure of the collar as part of the claimed article. The examiner did not consider the preamble, which did set forth the structure of the collar, as limiting the claim. The court found that the collar structure could not be ignored. While the claim was not directly limited to the collar, the collar structure recited in

the preamble did limit the structure of the driver. "[T]he framework - the teachings of the prior art - against which patentability is measured is not all drivers broadly, but drivers suitable for use in combination with this collar, for the claims are so limited." *Id.* at 1073, 828 F.2d at 754.)." (emphasis added)

The Examiner argues that

"Response to (A), Examiner disagrees because the term 'for transient protection or dissipating transients' is preamble language and 'for plus function' for the circuit protection system. Further, the preamble language or "for plus function" must be read on the context of the entire claim or in a body of the claim. So the term "for transient protection or dissipating transients" does not support in the body of the claimed invention.

This argument is exquisitely repudiated by the entire Section I including *In re Stencil* relied on by the USPTO MPEP in which the preamble "was directed to a driver for setting a joint of a threaded collar*; < however>, < the body of the claim did not directly include the structure of the collar as part of the claimed article." Thus, the decision repudiates any requirement for "support in the claim". The meaning of "for plus function" is unknown. Perhaps, the Examiner intended to use the term "means plus function". The undersigned attorney is familiar with that term. (The undersigned attorney is the author of *Functional Claims and the 1952 Patent Act*, Journal of the Patent Office Society, July, 1966) To the extent that the preamble might be construed by the examiner as a means plus function clause, that position supports the position of the applicant. More specifically if the preamble is a means plus function clause it must be construed by 35 USC 112, 6th paragraph – "An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." Construing this preamble as a means plus

function requires that this preamble be construed as an element and also repudiates the Examiner's position that the preamble has no meaning or significance.

II. < PREAMBLE STATEMENTS RECITING PURPOSE OR INTENDED USE

Similary, the recognition and validity of the claim limitations "for dissipating transients" and "without the use of transorbs or metal oxide varistors" is supported by this section of MPEP 211.02 with:

"*Jansen v. Rexall Sundown, Inc.*, 342 F.3d 1329, 1333-34, 68 USPQ2d 1154, 1158 (Fed. Cir. 2003) (In a claim directed to a method of treating or preventing pernicious anemia in humans by administering a certain vitamin preparation to "a human in need thereof," the court held that the preamble is not merely a statement of effect that may or may not be desired or appreciated, but rather is a statement of the intentional purpose for which the method must be performed. Thus the claim is properly interpreted to mean that the vitamin preparation must be administered to a human with a recognized need to treat or prevent pernicious anemia.)"

Thus, just as Jansen stands for the proposition a preamble limiting the invention to a method for treating anemia the present invention is limited to apparatus for dissipation of transients without the use of transorbs or metal oxide varistors in a circuit board that does not have a recognized to dissipate transients.

In summary, the introductory part of MPEP 2111.02 I. as well as each of the respective sections captioned:

- I. < PREAMBLE STATEMENTS LIMITING STRUCTURE and
- II. < PREAMBLE STATEMENTS RECITING PURPOSE OR INTENDED USE

EXAMINER'S RESPONSE TO ARGUMENTS – LANDS 10

The Examiner asserts:

"Applicant argues: ...

B. The reference does disclose lands (10) for only attachment of device terminals and does not teach the land that is intermediate the edges of the terminals of the component.

Examiner disagrees because the examiner is confused what does applicant means.? The land pattern (10) is formed on a PCB and **intermediate between** the terminals of the component, see figure 2." (emphasis added)

The Examiner's statement paraphrases and misquotes the express statement of the examiner's argument and the applicant's explicit response on pages 4-5 of the response filed by applicant on 07/29/09.

That statement first quoted the examiners rejection followed by the rebuttal argument

"The rejection is:

4. Claims 62-70,76-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laschinski (U.S. Patent 6,467,163) in view of Tanabe et al. (U.S. Patent 4,883,920).

As to claims 62, 76, Laschinski discloses a universal component mounting structure for surface mountable electronic devices as shown in figures 1-2 comprising:

a printed circuit board (2, column 3, lines 60-61) having a SMT component (16) mounted on, the component (30; 40) having first and second terminals (column 5, lines 23-24), and each terminals having a first edge;

a conductive trace (10) formed on the PCB (2) having first and second opposed edges extending intermediate said first and second terminals (see figure 2), the edges of the trace (10) being defined a plane, see figure 2 and intersecting the first edge of the first and second terminals, the edge of the trace (10) disposed in parallel spaced relative to the edge of the first and second terminals respectively.

Laschinski does not specifically disclose the SMT component (16) having end caps. Tanabe et al. teaches a SMT component (2) having end caps (4) mounted on a substrate (1). It would have been obvious to one having an ordinary skill in the art at the time the invention was made to have the SMT component having end caps as taught by Tanabe et al. employed the SMT component of Laschinski in order to easy install components mounted on the PCB.

As to claims 66, 80, Laschinski discloses a universal component mounting structure for surface mountable electronic devices as shown in figures 1-2 comprising: a printed circuit board (2, column 3, lines 60-61) having a first SMT component (16) mounted on, the component (30; 40) having first and second terminals (column 5, lines 23-24), and each terminals having a first edge; and a second SMT component (14) having end caps (see figure 2), and a conductive trace (10) formed on the PCB (2) having first and second opposed edges extending intermediate said first and second terminals (see

figure 2), the edges of the trace (10) being defined a plane, see figure 2 and intersecting the first edge of the first and second terminals, the edge of the trace (10) disposed in parallel spaced relative to the edge of the first and second terminals respectively.

Laschinski does not specifically disclose the SMT component (16) having end caps. Tanabe et al. teaches a SMT component (2) having end caps (4) mounted on a substrate (1). It would have been obvious to one having an ordinary skill in the art at the time the invention was made to have the SMT component having end caps as taught by Tanabe et al. employed the SMT component of Laschinski in order to easy install components mounted on the PCB." (Emphasis added)

The bold font words above is materially incorrect with respect to the word "intermediate". The structure provides a printed circuit board that include planar conductive traces positioned for contact with the planar faces of the terminals of the surface mounted component. The lower face of the surface mounted component (that includes the lower face of the respective terminals) are thus in a different plane than the plane defined by the conductive traces. The respective planes are not even in face to face abutting relationship. They are spaced apart by the thickness of the solder intermediate the terminals and the plane of the conductive traces. There is no plane defined by the edges of end caps as specified in the claims that extends through the land 10."

Thus, the current assertion by the examiner paraphrases and misquotes the explicit record in this application.

EXAMINER'S RESPONSE TO ARGUMENTS – DIMENSIONS X AND T

The applicant's statement:

C) "Laschinski in addition to not describing surface mount components that include end caps, clearly does not describe or even mention the dimensions X and t dimensions as defined in the present specification and claims of the present application much less identify the importance of these dimensions in any embodiment in the reference."

The Examiner asserts:

"Examiner disagrees because as modified by Tanabe, Tanabe et al. teaches a SMT component (2) having end caps (4) mounted on a substrate (1). Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to have the SMT component having end caps as taught by Tanabe et al. employed the SMT component of Laschinski in order to easy install components mounted on the PCB, and it would have been obvious to one having ordinary skill in the art at the time the invention was made to have X

dimension of 0.01 in equal to either the second edge of the trace and the first edge of the second cap in order to minimize size of the PCB, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose* 105 USPQ 237 (CCPA 1955).

In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955) stands for the principal that claims directed to a lumber package "of appreciable size and weight requiring handling by a lift truck" were unpatentable over prior art lumber packages which could be lifted by hand because limitations relating to the size of the package were not sufficient to patentably distinguish over the prior art.

In extremely distinct contrast the dimensions in the present invention are of critical importance. For example, changing a dimension less than .01 of an inch may result in an electric arc destroying an electric component as opposed to being harmlessly dissipated. The specification fully discloses this criticality on pages 8, 9 and 10 of the application. Similarly, explicit claims are presented herein. Nothing in the specification validates the examiner's argument that a dimension should be 0.01 inch in order to change the size of the component. The specification does explicitly describe on page 8, line 8 providing a different path for the transient arc. The dimensions X and t are critical and material. The importance of the critical spacing of the present invention is apparent, for example, from claim 69 specifying that X is .01 inch.

Claim Rejections -35 USC §103(a)

The rejection is:

4. Claims 62-70, 76-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laschinski (U.S. Patent 6,467,163) in view of Tanabe et al. (U.S. Patent 4,883,920).

As to claims 62, 76, Laschinski discloses a universal component mounting structure for surface mountable electronic devices as shown in figures 1-2 comprising:

a printed circuit board (2, column 3, lines 60-61) having a SMT component (16) mounted on, the component (30; 40) having first and second terminals (column 5, lines 23-24), and each terminals having a first edge;

a conductive trace (10) formed on the PCB (2) having first and second opposed edges extending intermediate said first and second terminals (see figure 2), the edges of the trace (10) being defined a plane, see figure 2 and intersecting the first edge of the first and second terminals, the edge of the trace (10) disposed in parallel spaced relative to the edge of the first and second terminals respectively.

Laschinski does not specifically disclose the SMT component (16) having end caps. Tanabe et al. teaches a SMT component (2) having end caps (4) mounted on a substrate (1). It would have been obvious to one having an ordinary skill in the art at the time the invention was made to have the SMT component having end caps as taught by Tanabe et al. employed the SMT component of Laschinski in order to easy install components mounted on the PCB.

As to claims 66, 80, Laschinski discloses a universal component mounting structure for surface mountable electronic devices as shown in figures 1-2 comprising:

a printed circuit board (2, column 3, lines 60-61) having a first SMT component (16) mounted on, the component (30; 40) having first and second terminals (column 5, lines 23-24), and each terminals having a first edge; and a second SMT component (14) having end caps (see figure 2), and a conductive trace (10) formed on the PCB (2) having first and second opposed edges extending intermediate said first and second terminals (see figure 2), the edges of the trace (10) being defined a plane, see figure 2 and intersecting the first edge of the first and second terminals, the edge of the trace (10) disposed in parallel spaced relative to the edge of the first and second terminals respectively.

Laschinski does not specifically disclose the SMT component (16) having end caps. Tanabe et al. teaches a SMT component (2) having end caps (4) mounted on a substrate (1). It would have been obvious to one having an ordinary skill in the art at the time the invention was made to have the SMT component having end caps as taught by Tanabe et al. employed the SMT component of Laschinski in order to easy install components mounted on the PCB." (Emphasis added)

The bold font words above are materially incorrect with respect to the word "intermediate". The structure provides a printed circuit board that include planar conductive traces positioned for contact with the planar faces of the terminals of the surface mounted component. The lower face of the surface mounted component (that includes the lower face of the respective terminals) are thus in a different plane than the plane defined by the conductive traces. The respective planes are not even in face to

face abutting relationship. They are spaced apart by the thickness of the solder intermediate the terminals and the plane of the conductive traces. There is no plane defined by the edges of end caps as specified in the claims, much less a plane that extends through the land 10.

In addition to the above noted imprecision the follow issues relating to the rejection are also noted:

1. Neither reference relied on relates to the problem of transient protection or dissipating transients or even mentions the word "transients" or any synonym thereof.
2. Neither reference relied on relates to any solution for dissipating transients.
3. Laschinski teaches that land 10 is only for attachment of device terminals.
4. Laschinski teaches that the sizing and location of lands is based solely on the dimensions of the family of surface mounted devices to which the surface mounted component is to be attached and insulating gap requirements. See the paragraph bridging columns 2 and 3: "For example, a few industry standard sizes for surface mount resistors and capacitors are commonly known as 805,1206, and 1210, the sizes being 0.080x0.050 in., and 0.120x0.060 in., and 0.120x0.100 in. respectively. The terminations or connection points on these examples are on the ends of the longer axis. For a universal mounting 5 pattern to accommodate placement of anyone of these example devices, an insulating gap of 0.070 in. or less between the two conductive lands and the combined widths of the lands and the insulating gap are at least 0.130 in. or more is required. Multiple variations of circuit land and gap 10 patterns base on the above mentioned concept can then be combined on a common printed circuit structure to provide a prototyping breadboard if so desired. Three terminal devices can also be accommodated by designing land patterns comprised of two or more parallel and one or

more 15 perpendicular conductive circuit lands with the insulating gaps between the lands."

5. Laschinski teaches only a prototyping board only for mounting surface mounted components. See Figure 6 illustrating in-line connectors for making connections to the respective surface mount components on the prototyping board.

6. Laschinski does not teach a land that is intermediate the edges of respective end caps of the same surface mounted component.

7. The placement of all lands, including land 10, in Laschinski is determined based on the spacing required by respective families of surface mounted components. There is no suggestion that the spacing should be governed by the need for dissipating transients or even of the dimensions intermediate respective lands on the board.

8. Laschinski in addition to not describing surface mount components that include end caps, clearly does not describe or even mention the dimensions X and t dimensions as defined in the present specification and claims of the present application much less identify the importance of these dimensions in any embodiment in the reference.

9. Laschinski is so totally unconcerned about transients that the specification of that reference refers almost as an afterthought to the connection of power to the board. See column 7, final paragraph:

"As shown in FIG. 3, interconnection of other circuits to the universal mounting structure for surface mountable electronic devices in any of its possible configuration within the context of the present invention described above can take a variety of forms. The wires 70, leads, terminal, or other electrically conducting objects of other circuits 72 that are to be connected can be soldered directly to the circuit lands, or could be attached by bonding to the circuit lands

with conductive adhesives or by the use of welding. Any means that provide an electrical connection that meets the requirements of the circuit designer would be appropriate. Another method of interconnection would be the use of a socket or edge card connector, in which case the present invention could be modified so as to have one or more edges provided with a circuit pattern that can interface with said socket or connector."

10. Even if the Examiner's conjuncture about it being obvious to combine Laschinski and Tanabe were correct, the combination would still not suggest anything relating to dissipating transients, much less an alternate path or the spacing thereof with respect to other parts of the system. More specifically, There is not the slightest suggestion in the cited references (alone or in combination) of any one of the following limitations in dependent claims:

- (a) providing the spacing of .01 inch as explicitly claimed in claims 65, 69, 79 and 83.
- (b) providing dimension of the space intermediate
 - (1) said first edge of said trace and said first edge of said first end cap and
 - (2) said second edge of said trace and said first edge of said second end cap are both substantially equal to X. as explicitly claimed in claim 63, 67, 77 and 81.
- (c) wherein said surface mount component has a height dimension t and X is less than t as explicitly claimed in claims 64, 68, 77 and 82.
- (d) having first ,second, and third surface mounted resistors as explicitly recited in claim 80
- (e) having wherein dimension of the space intermediate (1) said first edge of said trace and said first edge of said first end cap of said first surface mounted resistor and (2) said second edge of said trace and said first edge of said second end cap of said first surface mounted resistor, (3) said first edge of said trace and said first edge of said first end cap of said second surface mounted resistor and (4) said second edge of said trace and said first edge of said second end cap of

said second surface mounted resistor are all substantially equal to X as explicitly claimed in claim 81

Mere statements that these claims are obvious with absolutely no basis in the cited art are insufficient.

11. It is recognized KSR v. Teleflex 550 U.S. 398, 1275 S. Ct 1727 (2007) allows patent examiners to look at art other than art specifically directed to the problem the patentee was trying to solve. Even in KSR, the examiner found art related to brakes. In contrast, the references relied on in the present case have nothing to with transient dissipation.

12. The references relied on do not constitute provide factually supported objective evidence establishing a *prima facie* case of obviousness. The only possible manner in which the combination of these references would show or suggest, to a person having ordinary skill in the art, the present invention is by the use of impermissible hindsight. Because the references have no relevance to transient dissipation, it is inescapable that that the present application has been merely used to apply hindsight as abundantly described in many references:

http://www.patentyo.com/patent/2006/11/hindsight_bias.html

http://www.patenthawk.com/blog/2006/08/impermissible_hindsight_1.html

Thus, the references either alone or in combination do not have the structure explicitly claimed, do not have the purpose of the present invention (either intentionally or inherently), and do not achieve the result of the present invention either intentionally or inherently. Accordingly, there is no rational, good faith, plausible, or credible support for rejection based on the cited references.

The allowed claims are again noted.

It is respectfully submitted that the now rejected claims (including withdrawn claims) are allowable and such action is requested.

Should a petition for an Extension of Time be necessary for the timely reply to the outstanding office action (or such a petition has been made and an additional extension is necessary) petition is hereby made in the Commissioner is authorized to charge any fees (including additional claim fees) to Deposit Account Number 19-2635 under Attorney Docket Number H0006069-0555.

Respectfully submitted,



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